Tesla's Transmitter: A Tunguska Connection?

Did Nikola Tesla's wireless power transmission experiment cause the mysterious explosion over Tunguska, Siberia, in 1908?

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IN SEARCH OF A "DEATH RAY"

In the spring of 1924, newspapers carried stories about "death ray" inventions in different parts of the world. The work of Harry Grindell-Matthews, London, was the first reported. *The New York Times* of 21st May had this story:

"Paris, May 20 — If confidence of Grindell-Matthews, inventor of the so-called 'diabolical ray' in his discovery is justified, it may become possible to put the whole of an enemy army out of action, destroy any force of airplanes attacking a city or paralyze any fleet venturing within a certain distance of the coast by invisible rays."

Grindell-Matthews stated that his destructive rays would operate over a distance of four miles and that the maximum distance for this type of weapon would be seven or eight miles. Asked if it would be possible to destroy an approaching enemy fleet, the inventor said it would not, because "Ships, like land, are in continual contact with the Earth, but what I can do is to put the ships out of action by the destruction of vital parts of the machinery, and also by putting the crews temporarily out of action through shock."^a Airplanes, on the other hand, could be completely destroyed. As soon as his ray touched the plane it would burst into flames and fall to Earth.

Germany joined the technology race on 25th May when it announced its electrical weapon. As *The Chicago Tribune* reported:

"That the German Government has an invention of death rays that will bring down airplanes, halt tanks on the battlefields, ruin automobile motors, and spread a curtain of death like the gas clouds of the recent war..."

Sensing something of importance *The New York Times* copyrighted its story of 28th May on a ray weapon developed by the Soviets. The story opened:

"News has leaked out from the Communist circles in Moscow that behind Trotsky's recent warlike utterance lies an electromagnetic invention, by a Russian engineer named Grammachikoff, for destroying airplanes."³

Tests of the destructive ray, the *Times* continued, had began the previous August with the aid of German technical experts. A large-scale demonstration at Podosinsky Aerodrome near Moscow was so successful that the Revolutionary Military Council and the Political Bureau decided to fund enough electronic anti-aircraft stations to protect sensitive areas of Russia. Similar but more powerful stations were to be constructed to disable the electrical mechanisms of warships.

An English engineer, J. H. Hamil, offered the American Army plans for producing "an invisible ray capable of stopping airplanes and automobiles in midflight", invented by a German scientist. The ray device was said to have been used the previous summer to bring down French planes over Bavaria. Hamil noted, however, that "the fundamental work was done by Nikola Tesla in Colorado Springs about 30 years ago".⁴

TESLA'S WIRELESS EXPERIMENT

The effect that captured the attention of foreign death-ray inventors occurred at the Colorado Springs Electric Company powerhouse. One day while Tesla was conducting a high-power test, the erackling from inside the laboratory suddenly stopped. Bursting into the lab, Tesla demanded to know why his assistant had disconnected the coil. The assistant protested that he had not done anything. The power from the city's generator, the assistant said, must have quit. When the angry Tesla telephoned the power company he received an equally angry reply that the power company had not cut the power, but that Tesla's experiment had destroyed the generator!

These Colorado tests led to the development of a weapon much more ominous than any of the "death ray" inventions.

When he realised that economic forces would not allow the development of a new type of electrical generator that would supply power without burning fuel, he "was led to recognize [that] the transmission of electrical energy to any distance through the media as by far the best solution of the great problem of harnessing the Sun's energy for the use of man."5.6 His idea was that a relatively few generating plants located near waterfalls would supply his very high energy transmitters which, in turn, would send power through the Earth to be picked up wherever it was needed.

Receiving energy from this high-pressure reservoir would only require a person to put a rod into the ground and connect it to a receiver operating in resonance with the electrical motion in the Earth. As Tesla described in 1911:

"The entire apparatus for lighting the average country dwelling will contain no moving parts whatever, and could be readily carried about in a small valise."

The difference between a current used to light "the average country dwelling" and a current used as a method of destruction, however, is a matter of timing. If the amount of electricity used to run a television for an hour is released in a millionth of a second, it would have a very different, and negative, effect on the television.

Tesla said his transmitter could produce 100 million volts of pressure, and currents up to 1,000 amperes, with experimental power levels of billions or tens of billions of watts.

If that amount of power were released in an incomparably small interval of time, the energy would be equal to the explosion of millions of tons of TNT, that is, a multimegaton explosion. Such a transmitter would be capable of projecting the force of a nuclear warhead by radio. Any location in the world could be vaporised at the speed of light.

TESLA'S WORLDWIDE WIRELESS SYSTEM

Not unexpectedly, many scientists doubted the technical feasi-

bility of Tesla's wireless power transmission scheme whether for commercial or military purposes. Modern authorities in electronics, even those who express admiration for Tesla's genius, believe he was mistaken in the interpretation of his experiments when it came to electrical transmission through the Earth. 10.11,12

On the other hand, statements from authoritative witnesses who saw Tesla's equipment in operation support his claim about transmission with something other than the radio waves known today. During the Chicago World's Fair of 1893, the Westinghouse exhibit set up by Tesla was visited by Herman von Helmholtz, one of the leading physicists of his time. When Tesla "asked the celebrated physicist for an expression of opinion on the feasibility of the [transmission] scheme, he stated unhesitatingly that it was practicable."3

Later, in 1897, Lord Kelvin visited New York and stopped at the Tesla laboratory where Tesla entertained him with demonstrations in support of Tesla's wireless theory.

"Suddenly [Kelvin] remarked with evident astonishment: 'Then you are not making use of Hertz waves?' 'Certainly not,' I replied. 'These are radiations.' ... He parted from me not only thoroughly convinced of the scientific soundness of the idea but strongly expressed his confidence in its success."13

A recent analysis of Tesla's wireless transmission method shows that he used an electrostatic transmission technique that did not radiate radio waves as we know them and could send waves through the Earth with little loss of power.

The question remains of whether Tesla demonstrated the weapons application of his power transmission system. Circumstantial evidence found in the chronology of Tesla's work and financial fortunes between 1900 and 1908 points to there having been a test of this weapon.

1900—Tesla returned from Colorado Springs after completing the tests of wireless power transmission that destroyed the power company's generator, and received backing from J. P. Morgan to

Powerful discharge from a transmitter constructed in accordance with principles set forth in Nikola Tesla's US Patent no. 1,119,732, awarded on 1st December 1914.

build a transmitter to signal Europe. He called the research site "Wardenclyffe".

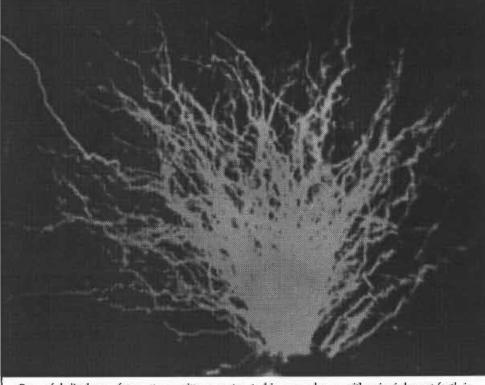
On 12th December Marconi sent the first transatlantic signal, the letter "S", from Cornwall, England, to Newfoundland, Canada. He did this, as the financiers noted, with equipment much less costly than that being built by Tesla.

1902-1904—The construction of Wardenclyffe went over budget; Morgan refused further funding. Marconi was hailed as a world hero.

1904-1906-Tesla was subject to multiple lawsuits over unpaid Colorado Springs expenses. George Westinghouse, who bought Tesla's patents for alternating current motors and generators in the 1880s, turned down the inventor's power transmission business proposal. Workers gradually stopped coming to the Wardenclyffe laboratory when there were no funds to pay them.

In an article, Tesla commented on Peary's expedition to the North Pole, and told of his (Tesla's) plans for energy transmission to any central point on the ground.





1907—Tesla noted in a letter to *The New York Times* that electrical waves could be used for destructive ends. "As to projecting wave energy to any particular region of the globe...this can be done by my devices," he wrote. Further, he claimed that "the spot at which the desired effect is to be produced can be calculated very closely, assuming the accepted terrestrial measurements to be correct."⁵

1908—Tesla repeated the idea of destruction by electrical waves to the newspaper on 21st April. His letter to the editor stated, "When I spoke of future warfare I meant that it should be conducted by direct application of electrical waves without the use of aerial engines or other implements of destruction." He added, "This is not a dream. Even now, wireless power plants could be constructed by which any region of the globe might be rendered uninhabitable without subjecting the population of other parts to serious danger or inconvenience."

In the period from 1900 to 1910, Tesla's creative thrust was to establish his plan for wireless transmission of energy. Undercut by Marconi, beset by financial problems, and spurned by the scientific establishment, Tesla was in a desperate situation by middecade. The strain became too great by 1906-1907 and, according to Tesla biographers, he suffered an emotional collapse.^{18,19}

In order to make a final effort to have his grand scheme recognised, he may have tried one high-power test of his transmitter to show off its destructive potential. This would have been in 1908.

THE TUNGUSKA EVENT

The Tunguska event took place on the morning of 30th June 1908. An explosion, estimated to be equivalent to 10 to 15 megatons of TNT, flattened 500,000 acres of pine forest near the Stony Tunguska River in central Siberia. Whole herds of reindeer were destroyed. Several nomadic villages were reported to have vanished. The explosion was heard over a radius of 620 miles. When an expedition was made to the area in 1927 to find evidence of the

meteorite presumed to have caused the blast, no impact crater was found. When the ground was drilled for pieces of nickel, iron or stone (the main constituents of meteorites), nothing was found down to a depth of 118 feet.

Several explanations have been given for the Tunguska event. The officially accepted version is that a 100,000-ton fragment of Encke's Comet, composed mainly of dust and ice, entered the atmosphere at 62,000 mph, heated up and exploded over the Earth's surface creating a fireball and shock- wave but no crater. Alternative explanations of the disaster include a renegade mini black hole or an alien spaceship crashing into the Earth with the resulting release of energy.

Associating Tesla with the Tunguska event comes close to putting the inventor's power transmission idea in the same speculative category as ancient astronauts. However, historical facts point to the possibility that this event was caused by a test-firing of Tesla's energy weapon.

In 1907 and 1908, Tesla wrote about the destructive effects of his energy transmitter. His Wardenclyffe facility was much larger than the Colorado Springs device that destroyed the power station's generator. Then, in 1915, he stated bluntly:

"It is perfectly practical to transmit electrical energy without wires and produce destructive effects at a distance. I have already constructed a wireless transmitter which makes this possible... But when unavoidable [it] may be used to destroy property and life. The art is already so far developed that the great destructive effects can be produced at any point on the globe, defined beforehand with great accuracy."²⁰

He seems to confess to such a test having taken place before 1915, and, though the evidence is circumstantial, Tesla had the motive and the means to cause the Tunguska event. His transmitter could generate energy levels and frequencies capable of releasing the destructive force of 10 megatons or more of TNT. And the overlooked genius was desperate.

E/M FINGERPRINTS OF THE TUNGUSKA EVENT

The nature of the Tunguska event is also consistent with what would happen during the sudden release of wireless power. No fiery object was reported in the skies at that time by professional or amateur astronomers, as would be expected when a 200,000,000-pound object enters the atmosphere at tens of thousands of miles an hour. Also, the first reporter (from the town of Tomsk) to reach the area judged the stories about a body falling from the sky to be the result of the imagination of an impressionable people. He noted that considerable noise had come from the explosion, but no stones had fallen.

The absence of an impact crater can be explained by there having been no material body to impact. An explosion caused by broadcast power would not leave a crater.



The 167-foot-high transmitter at Wardenclyffe, erected for purposes of "world telegraphy" in 1901.

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In contrast to the ice-comet collision theory, reports of upper atmosphere and magnetic disturbances coming from other parts of the world at the time of and just after the Tunguska event point to massive changes in the Earth's electrical condition. Baxter and Atkins cite in their study of the explosion, *The Fire Came By*, that

The Times of London editorialised about "*slight, but plainly marked, disturbances of...magnets*" which the writer, not knowing then of the explosion, associated with solar prominences.²¹

In Berlin, The New York Times of 3rd July reported unusual colours in the evening skies, thought to be the northern lights: "Remarkable lights were observed in the northern heavens...bright diffused white and yellow illumination continuing through the night until it disappears at dawn."22 Massive glowing "silvery clouds" covered Siberia and northern Europe. A scientist in Holland told of an "undulating mass" moving across the north-west horizon. It seemed to him not to be a cloud, but the "sky itself seemed to undulate". A woman north of London wrote to the London Times that on midnight of 1st July the sky glowed so brightly it was possible to read large print inside her house.

A meteorologial observer in England recount-

ed on the nights of 30th June and 1st July: "A strong orange yellow light became visible in the north and north-east...causing an undue prolongation of twilight lasting to daybreak on 1st July... There was a complete absence of scintillation or flickering, and no tendency for the formation of streamers, or a luminous arch, characteristic of auroral phenomena..."²³ The report that most closely ties these strange cosmic happenings with Tesla's power transmission scheme is that while the sky was aglow with this eerie light it was possible to see clearly ships at sea for miles in the middle of the night.²⁴ Tesla specifically claimed this as one of the effects he could achieve with his high-

The report that most closely ties these strange cosmic happenings with Tesla's power transmission scheme is that while the sky was aglow with this eerie light it was possible to see clearly ships at sea for miles in the middle of the night. power transmitter. Of particular importance is that none of his claims for lighting the ocean appeared before 1908.²⁵

A typical statement about the light induced by his transmitter is this from the New York American of 7th December 1914:

"The lighting of the ocean...is only one of the less important results to be achieved by the use of this invention [the transmitter]. I have planned many of the details of a plant which might be erected at the Azores and which would be amply sufficient to illuminate the entire ocean so that such a disaster as that of the Titanic would not be repeated. The light would be soft and of very small intensity, but quite adequate to the purpose."²⁶

When Tesla used his high-power transmitter as a directed-energy weapon, he drastically altered the normal electrical

condition of the Earth. By making the electrical charge of the planet vibrate in tune with his transmitter, he was able to build up electric fields that affected compasses and caused the upper atmosphere to behave like the gas-filled lamps in his laboratory. He had turned the entire globe into a simple electrical component that he could control.

RATIONALISATIONS

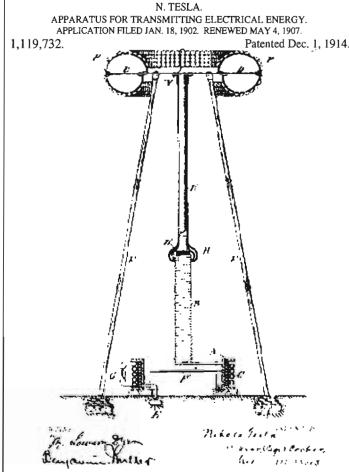
Given Tesla's general pacifist nature it is hard to understand why he would carry out a test harmful to both animals and the people who herded the animals, even when he was in the grip of financial desperation. The answer is that he probably intended no harm, but was aiming for a publicity coup and, literally, missed his target.

At the end of 1908, the whole world was following the daring attempt of Peary to reach the North Pole which he claimed in the spring of 1909. If Tesla wanted the attention of the international press, few things would have been more impressive than the Peary expedition sending out word of a cataclysmic explosion on the ice near or at the North Pole.²⁷ Tesla, then, if he could not be hailed as the master creator that he was, could be seen as the master of a

mysterious new force of destruction.

The test, it seems, was not a complete success. It must have been difficult controlling the vast amount of power in the transmitter to the exact spot Tesla intended. The North Pole lies close to a great-circle line connecting Shoreham, Long Island and the Tunguska region. That path passes close by Alert on Ellesmere Island where Peary spent the winter.28 The uninhabited region between Alert and the North Pole might have been the intended target for a test-firing of the wireless transmission system. However, "the accepted terrestrial measurements" of that day were not precise enough for the task. The destructive electrical wave overshot its target.

Whoever was privy to Tesla's energy weapon demonstration must have been dismayed either because it missed the intended target and would be a threat to inhabited regions of the planet, or because it worked too well in devastating such a large area at the mere



Footnotes:

1. "Tells Death Power of 'Diabolical Rays'", *The New York Times*, 21 May 1924, p. l.

2. Ibid.

3. "Suggests Russia Has A 'Ray'", The New York Times, 28 May 1924, p. 25.

4. "Tesla Discovered 'Death Ray' In Experiments Made Here", Colorado Springs Gazette, 30 May 1924, p. 1.

5. Tesla, Nikola, "The Problem of Increasing Human Energy, with Special Reference to the Hamessing of the Sun's Energy", *The Century Illustrated* Magazine, June 1900.

 Nichelson, Oliver, "Nikola Tesla's Later Energy Generation Designs", IECEC, 1991.

7. American Examiner, 1911 (issue number unknown).

8. Tesla, Nikola, "How to Signal Mars", *The New York Times*, 23 May 1909, p. 10. Tesla claims to have sent "a current around the globe" in the order of

"15,000,000" horsepower or 11 billion watts.

9. Secor, H. Winfield, "The Tesla High Frequency Oscillator", The Electrical Experimenter, March 1916, p. 615. 10. Wait, James R., "Propagation of ELF Electromagnetic Waves and 'Project Sanguine/Seafarer'", Journal of Oceanic Engineering, IEEE, vol. OE-2, no. 2, April 1977, pp. 161-172. 11. Marincic, Aleksandar, Nikola Tesla, Colorado Springs Notes 1899-1900, Nikola Tesla Museum, published by Nolit, Beograd, Yugoslavia, p. 19. 12. Corum, James F. and Kenneth L. Corum, "Disclosures Concerning the Operation of an ELF Oscillator", Tesla '84—Proceedings of the Tesla Centennial Symposium (Dr Elizabeth Rauscher and Mr Toby Grotz, editors), International Tesla Society, Inc., Colorado Springs, USA, 1985, pp. 41-49.

 Tesla, Nikola, "Famous Scientific Illusions", *The Electrical Experimenter*, February 1919, p. 732.
Ibid.

 Nichelson, Oliver, "Tesla's Wireless Transmission Method", 1992.
Tesla, Nikola, "Tesla's Wireless Torpedo", *The New York Times*, 20 March 1907, p. 8.

 Tesla, Nikola, "Mr Tesla's Vision", The New York Times, 21 April 1908, p. 5.

18. Seifer, Marc J., "Nikola Tesla: The Lost Wizard", *Tesla '84—Proceedings* of the Tesla Centennial Symposium, op. cit., pp. 31-40.

19. Cheney, Margaret, *Tesla, Man out* of *Time*, Dell Publishing Co., New York, USA, 1983, p. 187.

throwing of a switch thousands of miles away. Whatever was the case, Tesla never received the notoriety he sought for his power transmitter.

The evidence is only circumstantial. Perhaps Tesla never did achieve wireless power transmission through the Earth. Maybe he made a mistake in interpreting the results of his radio tests in Colorado Springs and really saw a low-frequency phenomenon, Schumann oscillations, and not an effect engineers believe a scientific impossibility. Perhaps the mental stress he suffered caused him to retreat into a fantasy world from which he would send out preposterous claims to reporters who gathered for his yearly pronouncements on his birthday. Maybe the atomic bomb-size explosion in Siberia near the turn of the century was the result of a meteorite nobody saw fall.

Or, perhaps, Nikola Tesla did shake the world in a way that has been kept secret for over 80 years. ∞

20. Tesla, Nikola, "Tesla's New Device Like Bolts of Thor", *The New York Times*, 8 December 1915, p. 8.

21. Baxter, John and Thomas Atkins, *The Fire Came By*, Warner Books, New York, USA, 1977, p. 27.

22. Ibid, p. 26.

23. Spenser Russell, quoted in Baxter and Atkins, *The Fire Came By*, p. 28, from the *Royal Meteorological Society Quarterly*, 1930.

24. Baxter and Atkins (see Footnote 21).

25. The carliest mention of lighting the ocean appears to have been in 1911 in a New York *American* article by Marcel Roland, dated 3rd September. See Ratzlaff, John and Leland Anderson, *Dr Nikola Tesla Bibliography*, Ragusan Press, 1979, p. 93.

26. "Tesla Light to Rob Oceans of Every Danger", American, New York, 7 December 1914.

27. Tesla suggested a similar test of his power transmission system aimed at the Moon where everyone could see "the splash and volatization of matter". See Footnote 19, p. 255.

28. Bayshore, Long Island, is at 40 N 43, 73 W 13; Alert, Canada (Ellsmere Island) is at 82 N 31, 62 W 05; and Tunguska is at 60 N 55, 101 E 57.

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